

Title (en)

CHARGING SYSTEM, CHARGING METHOD, AND POWER ADAPTER FOR TERMINAL

Title (de)

LADESYSTEM, LADEVERFAHREN UND STROMADAPTER FÜR ENDGERÄT

Title (fr)

SYSTÈME DE CHARGE, PROCÉDÉ DE CHARGE, ET ADAPTATEUR D'ALIMENTATION POUR TERMINAL

Publication

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Application

EP 16889011 A 20160726

Priority

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- CN 2016091759 W 20160726

Abstract (en)

A device charging system and a device charging method and a power adapter are provided. The device charging system includes a power adapter and a device. The power adapter includes a first rectification unit, a switch unit, a transformer, a second rectification unit, a first charging interface, a sampling unit, and a control unit. The control unit is configured to output a control signal to the switch unit, and adjust a duty ratio of the control signal based on a voltage sampling value and/or current sampling value sampled by the sampling unit, whereby a voltage of a third pulsating waveform meets the charging requirements. The device includes a second charging interface and a battery. The second charging interface is coupled with the battery. When the second charging interface is coupled to the first charging interface, the second charging interface applies the voltage of the third pulsating waveform to the battery, whereby the voltage of the pulsating waveform output from the power adapter can be directly applied to the battery, which can achieve miniaturization and reduce the cost of the power adapter and improve the battery life.

IPC 8 full level

H02J 7/06 (2006.01)

CPC (source: CN EP KR US)

G01R 31/2874 (2013.01 - US); **H01F 27/425** (2013.01 - US); **H01M 10/0525** (2013.01 - US); **H02H 3/202** (2013.01 - CN); **H02H 7/18** (2013.01 - CN); **H02J 7/00** (2013.01 - US); **H02J 7/00034** (2020.01 - KR); **H02J 7/00036** (2020.01 - US); **H02J 7/00043** (2020.01 - US); **H02J 7/0013** (2013.01 - US); **H02J 7/0029** (2013.01 - CN); **H02J 7/0031** (2013.01 - CN); **H02J 7/0042** (2013.01 - US); **H02J 7/0044** (2013.01 - US); **H02J 7/0045** (2013.01 - US); **H02J 7/0047** (2013.01 - EP KR US); **H02J 7/007** (2013.01 - CN); **H02J 7/0071** (2020.01 - CN EP KR US); **H02J 7/00711** (2020.01 - CN EP KR US); **H02J 7/00712** (2020.01 - CN US); **H02J 7/00714** (2020.01 - CN); **H02J 7/007182** (2020.01 - CN EP KR US); **H02J 7/007188** (2020.01 - CN); **H02J 7/007192** (2020.01 - CN US); **H02J 7/02** (2013.01 - CN EP KR US); **H02J 7/04** (2013.01 - CN EP US); **H02J 7/06** (2013.01 - CN EP US); **H02J 7/1492** (2013.01 - US); **H02J 7/2434** (2020.01 - US); **H02M 1/08** (2013.01 - CN US); **H02M 3/156** (2013.01 - US); **H02M 3/33507** (2013.01 - CN US); **H02M 3/33515** (2013.01 - CN US); **H02M 3/33523** (2013.01 - CN US); **H02M 3/3353** (2013.01 - CN); **H02M 3/33546** (2013.01 - CN US); **H02M 3/33569** (2013.01 - CN); **H02M 3/33576** (2013.01 - CN); **H02M 3/33592** (2013.01 - CN); **H02M 7/06** (2013.01 - US); **H02M 7/217** (2013.01 - CN); **H04M 19/00** (2013.01 - EP KR US); **H01F 2027/408** (2013.01 - US); **H01M 10/4257** (2013.01 - US); **H02J 7/00034** (2020.01 - EP US); **H02J 7/0048** (2020.01 - US); **H02J 7/0049** (2020.01 - EP US); **H02J 7/00714** (2020.01 - EP KR US); **H02J 2207/10** (2020.01 - CN US); **H02J 2207/20** (2020.01 - CN EP KR US); **H02M 1/0009** (2021.05 - US); **H02M 1/0048** (2021.05 - US); **H02M 5/458** (2013.01 - US); **Y02D 30/70** (2020.08 - EP KR US); **Y02E 60/10** (2013.01 - KR)

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA ME

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EP 3229336 A1 20171011; **EP 3229336 A4 20171213**; **EP 3229336 B1 20200930**; AU 2016291545 A1 20170824; AU 2016291545 B2 20181213; AU 2016392087 A1 20171012; AU 2016392087 B2 20181220; AU 2016392087 B8 20190124; CN 106026327 A 20161012; CN 106026327 B 20180119; CN 106059025 A 20161026; CN 106059025 B 20180323; CN 106100083 A 20161109; CN 106100083 B 20171124; CN 106160094 A 20161123; CN 106160094 B 20170829; CN 106230082 A 20161214; CN 106253422 A 20161221; CN 106253422 B 20171121; CN 106253423 A 20161221; CN 106253423 B 20180213; CN 106253428 A 20161221; CN 106253428 B 20171124; CN 106537724 A 20170322; CN 106537724 B 20200110; CN 107466433 A 20171212; CN 107466433 B 20200515; CN 107534304 A 20180102; CN 107534304 B 20201229; CN 107534305 A 20180102; CN 107534305 B 20201201; CN 107534311 A 20180102; CN 107534311 B 20200922; CN 107592020 A 20180116; CN 107592020 B 20190906; CN 107592021 A 20180116; CN 107592021 B 20190906; CN 107592022 A 20180116; CN 107592022 B 20190906; CN 107592023 A 20180116; CN 107592023 B 20190906; CN 107592024 A 20180116; CN 107592024 B 20190906; CN 107592025 A 20180116; CN 107592025 B 20200110; CN 107615614 A 20180119; CN 107615614 B 20200117; CN 107660321 A 20180202; CN 107660321 B 20200825; CN 107681753 A 20180209; CN 107681753 B 20210205; CN 107710550 A 20180216; CN 107710550 B 20210511; CN 107710552 A 20180216; CN 107710552 B 20210518; CN 107733053 A 20180223; CN 107733053 B 20190906; CN 107750425 A 20180302; CN 107750425 B 20200821; CN 107769304 A 20180306; CN 107769304 B 20200211; CN 107769341 A 20180306; CN 107769341 B 20210323; CN 107836067 A 20180323; CN 107836067 B 20210706; CN 107846053 A 20180327; CN 107846053 B 20191227; CN 107852014 A 20180327; CN 107852014 B 20210514; CN 107852017 A 20180327; CN 107852017 B 20220322; CN 107852018 A 20180327; CN 107852018 B 20210625; CN 107887962 A 20180406; CN 107887962 B 20190712; CN 107895989 A 20180410; CN 107912074 A 20180413; CN 107912074 B 20210323; CN 107912076 A 20180413; CN 107912076 B 20210402; CN 107925264 A 20180417; CN 107925264 B 20220517; CN 107949969 A 20180420; CN 107980192 A 20180501; CN 107980192 B 20220218; CN 107980193 A 20180501; CN 107980193 B 20220218; CN 107994662 A 20180504; CN 107994662 B 20210810; CN 108011431 A 20180508; CN 108011431 B 20200221; CN 108093661 A 20180529; CN 108093661 B 20220520; CN 108093663 A 20180529; CN 108093663 B 20210518; CN 108141057 A 20180608; CN 108141057 B 20210824; CN 108233509 A 20180629; CN 108233509 B 20191015; CN 108271428 A 20180710; CN 108306399 A 20180720; CN 108306399 B 20200410; CN 108307667 A 20180720; CN 108307667 B 20210402; CN 108521838 A 20180911; CN 108521838 B 20230815; CN 109075598 A 20181221; CN 109075598 B 20220111; CN 109121445 A 20190101; CN 109121445 B 20201016; CN 109121448 A 20190101; CN 109121448 B 20220805; CN 109121451 A 20190101; CN 109155528 A 20190104; CN 109155528 B 20220607; CN 109155529 A 20190104; CN 109155529 B 20220719; CN 109463020 A 20190312; CN 109463020 B 20220805; CN 109874362 A 20190611; CN 109874362 B 20230117; CN 111211609 A 20200529; CN 111211609 B 20210625; CN 114583783 A 20220603; CN 116896136 A 20231017; CN 205882805 U 20170111; CN 205882806 U 20170111; CN 205882810 U 20170111; CN 205882811 U 20170111;

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